

SHULEYKIN, V.V., akademik

Winter transfer of heat from the ocean and effective radiation when
the continent's surface structure is complex. Dokl. AN SSSR 138 no.2:
351-354 My '61₈ (MIRA 14:5)
(Geophysics) (Meteorology, Maritime)

SHULEYKIN, V.V., akademik; SIGACHEV, N.I.

New test of the hypothesis concerning the nature of magnetic declination. Dokl. AN SSSR 140 no.1:107-110 S-O '61. (MIRA 14:9)

1. Nauchno-issledovatel'skoye sudno "Mikhail Lomonosov".
(Magnetic anomalies)

SHULEYKIN, Vasilii Vladimirovich, akademik; NIKIFOROVSKIY, V.A., red.
izd-va; SHEVCHENKO, G.N., tekhn. red.

[Studies on the physics of the ocean] Ocherki po fizike moria.
Izd.4., perer. i dop. Moskva, Izd-vo Akad. nauk SSSR, 1962.
469 p. (MIRA 15:2)

(Oceanography)

SHULEYKIN, V.V.

Light-minded "oceanology"; concerning N.N.Sysoev's article "Heat
Flow from the bottom of the Black Sea." Izv. AN SSSR, Ser.
geofiz. no.2:279-280 F '62. (MIRA 15:2)

(Black Sea---Temperature)
(Sysoev, N.N.)

SHULEYKIN, V.V.

Signs of some phenomena in light spectra in the depths of the
sea. Izv. AN SSSR. Ser. Geofiz. no.10:1404-1415 0 '62. (MIRA 16:2)
(Sea water—Spectra) (Oceanographic research)

SHULEYKIN, V.V., akademik

Common characteristics of turbulent viscosity of sea waves. Dokl.
AN SSSR 144 no.4:781-784 Je '62. (MIRA 15:5)
(Waves) (Ocean currents)

SHULEYKIN, V.V., akademik

Surface shape of a liquid approaching weightlessness.

Dokl. AN SSSR 147 no.1:92-95 N '62. (MIRA 15:11)

(Weightlessness)

(Liquids)

SHULEYKIN, V.V., akademik

More on the behavior of a liquid approaching weightlessness.

Dokl. AN SSSR 147 no.5:1075-1078 D '62. (MIRA 16:2)

(Liquids, Kinetic theory of) (Gravity)

SHULEYKIN, V.V.

Exact calculation of wind waves of a given probability degree.
Izv. AN SSSR. Ser.geofiz. no.1:156-168 Ja '63. (MIRA 16:2)
(Waves)

SHULEYKIN, V.V., akademik

The question of "physicists and lyric poets." Nauka i zhizn'
30 no.3:12 Mr '63. (MIRA 16:5)
(Scientists, Russian) (Litterateurs, Russian)

SHULEYKIN, V.V., akademik

Surface form of a liquid in a state of weightlessness. Nauka i
zhizn' 30 no.3:28 Mr '63. (MIRA 16:5)
(Liquids) (Weightlessness)

SHULEYKIN, V.V., akademik

Ground experiments with weightless liquids. Dokl. AN SSSR 152
no.5:1082-1085 0 '63. (MIRA 16:12)

ACCESSION NR: AP4007539

S/0020/63/153/006/1299/1302

AUTHOR: Shuleykin, V. V. (Academician)

TITLE: Second series of ground experiments with weightless liquids

SOURCE: AN SSSR. Doklady*, v. 153, no. 6, 1963, 1299-1302

TOPIC TAGS: weightlessness, weightless liquid, mercury, bromobenzene

ABSTRACT: The behavior of well purified liquids (e.g., mercury, bidistilled water, and bromobenzene) during free fall in a fluoroplastic container was studied to compare the behavior of liquids under conditions of weightlessness with theoretical calculations. Detailed photographs were taken of the changes in the configuration of mercury and water drops during fall. Pressure gradients accounted for some movements in mercury and for the fluctuation cycles, which were directed primarily from both ends of the rotational body toward the center of its mass and finally caused a contraction of the column as well as its separation from the container floor. An analysis of the fluctuation of liquid in a cylindrical body under conditions of weightlessness is attempted. The results of similar experiments with water differed from those with mercury in that the period of fluctuation in

Card 1/2

ACCESSION NR: APL023376

S/0049/64/000/002/0264/0278

AUTHOR: Shuleykin, V. V.

TITLE: Transfer of heat by currents in the closed cycle of the North Atlantic

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 2, 1964, 264-278

TOPIC TAGS: heat transfer, current, temperature field, isabnormal line, cofocal ellipse, Atlantic Ocean, ocean current, cyclical current, harmonic fluctuation, climatic change

ABSTRACT: The author has investigated the difference between the temperature field of the Atlantic Ocean (from the equator to 60° N lat) and that of a pure oceanic field that might be established if the effects of continents were absent. He has plotted the temperature isabnormal lines for surface water. The great part of the equatorial zone is covered by a regular series of isabnormal lines inclined to the parallels at an angle averaging about 18° . It is in this zone that a system of closed cyclic currents is located, as discussed by a number of authors. This system approximates in form cofocal ellipses, representing the flow lines, with the

Card 1/3

ACCESSION NR: AP4023376

major axes along the parallel 25° N Lat and the overall focus on the meridian 70° W Long. The author suggests a scheme of heat transfer from the space above and below the ocean surface to water in this system and then out again. The computed isabnormal fields for February and August correspond fairly well with actual fields. The period for a complete circuit of water along the closed flow lines does not prove to be a multiple of one year. This means that the heat regime in the cyclical currents must be different from the generally considered scheme; harmonic fluctuations must be completed with amplitudes changing from year to year, and they must develop their own distinctive periods, depending on climatic changes in the Atlantic Ocean. The expected period proves to be about 7.1 years. There is reason for believing that the water masses moving along different flow lines circle the focus in the same period of time. The statement of H. Stommel that friction is absent between layers of water is thus explained by lack of differential movement of these layers. Orig. art. has: 8 figures, 1 table, and 9 formulas.

ASSOCIATION: Akademiya nauk URSR Morskoy gidrofizicheskoy institut
Chernomorskoye otdeleniye, Katsivali (Academy of Sciences UkrSSR, Marine Hydro-
physical Institute, Black Sea Department)

Card 2/3

ACCESSION NR: AP4023376

SUBMITTED: 21Nov63

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: AS

NO REF SOV: 011

OTHER: 000

Card 3/3

SHULEYKIN, V.V., akademik

Physics of weightless liquids. Priroda 53 no.4:53-63 '64.

(MIRA 17:4)

BAZAROV, I.P.; GERASIMOV, Ya.I.; KISELEV, A.V.; PREDVODITELEV, A.S.;
RADUSHKEVICH, L.V.; SKURATOV, S.M.; TERLETSKIY, N.P.; CHMUTOV,
K.V.; SHUBNIKOV, A.V.; SHULEYKIN, V.V.

Vladimir Ksenofontovich Semenchenko, 1894- ; on his 70th
birthday. Zhur. fiz. khim. 39 no.5:1300-1301 My '65.
(MIRA 18:8)

SHUMYKIN, V.V. akademik

Energetics in sea animals. Dokl. AN SSSR 163 no.3:754-757 J1 '65.
(MIRA 18:7)

1. Chernomorskoye otdeleniye Morskogo gidrofizicheskogo instituta
AN UkrSSR.

ACC NR: AP0033273

(H)

SOURCE CODE: UR/0020/66/170/004/0837/0840

AUTHOR: Shuleykin, V. V. (Academician)

ORG: Black Sea Division, Marine Hydrophysical Institute, Academy of Sciences UkrSSR
(Chernomorskay otdeleniye Morskogo gidrofizicheskogo instituta Akademii nauk UkrSSR)

TITLE: Theory of steep waves

SOURCE: AN SSSR. Doklady, v. 170, no. 4, 1966, 837-840

TOPIC TAGS: ocean waves, wave equation, wave mechanics

ABSTRACT: The author found earlier the profile of wind-generated waves and that a constant statistical pressure is maintained along the wave profile. In the present paper, the author establishes a relationship according to which the orbits of wave water particles are reduced at increasing depths. It is found that the cause of faster attenuation of waves as a function of depth is related to the ellipticity of particle orbits in sharp waves; attenuation of particles along the minor axis of the ellipse is 1:45 to 2.0 times greater than attenuation of particles moving in radial paths according to trochoidal wave theory. Orig. art. has: 13 formulas and 2 figures.

SUB CODE: 08/ SUBM DATE: 06Jul66/ ORIG REF: 007/ OTH REF: 002

Card 1/1

ACC NR: AP6018059

(N)

SOURCE CODE: UR/0020/66/168/003/0573/0576

AUTHOR: Shuleykin, V.V. (Academician)

TITLE: More about the decay of waves in shallows

ORG: Black Sea Department, Institute of Marine Hydrophysics, AN Ukr SSR
(Chernomorskoye otdeleniye morskogo gidrofizicheskogo instituta)

SOURCE: AN SSSR. Doklady, v. 168, no. 3, 1966, 573-576

TOPIC TAGS: oceanology, ocean wave, ocean wave beach decay, mathematical analysis

ABSTRACT: The paper is an analysis of the problem of ocean wave decay in shallows. It contains an analytical confirmation of a hypothesis proposed by the author before (in 1) Izv. AN SSSR, ser. geofiz., no. 1, 1954, 65; and 2) Kratkiy kurs fiziki morya. Leningrad, 1959, p. 147), that of using a classical formula for the instantaneous phase velocities. The method was applied in the above references to obtain the decaying wave profiles, and the results checked since with observations made on beaches attacked by various types of waves. The present analysis considers the case of a very shallow, long period sinusoidal wave. Since the (non-linear) wave equation is not generally integrable, computations of wave shapes were made for $1/2$ and $1/1$ of the wave decay distance; the results were then substituted back into the equation and the discrepancy found small, thus confirming the validity of the hypothesis. After these conclusions were in the hands of the editors, an additional confirmation of the hypothesis was obtained by a computer solution of the wave equation for two values of the dimensionless

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UDC: 551.466.441

ACC NR: AP6018059

distance from the shallow's edge. The results are reviewed in this paper. These data were obtained under the direction of A.N. Tikhonov on an electronic computer; the programming was done by B.I. Volkoy, at the Moscow University. An estimate of the probable error induced by the use of the hypothesis is made on the basis of the computer numerical solution, works out to be under 6%. Orig. art. has: 2 figures and 8 formulas.

SUB CODE: 08, 12/

SUBM DATE: 08Feb66/

ORIG REF: 004/

OTH REF: 002

Card 2/2

SHULEYKINA, K. V.

"The Morphophysiological Character of the Embryonal Development of Man's Prehensile Reflexes (The Problem of the Embryogenesis of Unconditioned Reflexes)." Cand Biol Sci, Acad Sci USSR, Moscow, 1953. (RZhBiol, No 8, Dec 54)

Survey of Scientific and technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

SHULEYKINA, K.V.

Role of irregular maturation of embryonic structures in the formation of normal functions of newborns [with summary in English]. Akush. i gin. 34 no.4:49-53 J1-Ag '58 (MIRA 11:9)

1. Iz laboratorii embriogeneza cheloveka (zav. - deystvitel'nyy chlen AMN SSSR F.K. Anokhin) Instituta akusherstva i ginekologii (dir. - dots. L.G. Stepanov) Ministerstva zdavookhraneniya RSFSR.
(REFLEXES,

grasp reflex, role of irregular maturation of embryonal structure in form. (Rus))

(INFANT, (NEWBORN)

role of irregular maturation of embryonal structure in form of grasp reflex (Rus))

GOLUBEVA, Ye.L.; SHULEYKINA, K.V.; VANSHTEYN, I.I.

Development of the reflex and spontaneous activity of the human fetus in the process of embryogenesis. Akush. i gin. 35 no.3: 59-62 My-Je '59. (MIRA 12:8)

1. Iz laboratorii embriogeneza cheloveka (zav. - deystvitel'nyy chlen AMN SSSR prof.P.K.Anokhin) Instituta akusherstva i ginekologii (dir. - dotsent L.G.Stepanov) Ministerstva zdravookhraneniya RSFSR.
(FETUS, physiol.
develop. of reflex & spontaneous activity (Rus))

SHULEYKINA, K.V. (Moskva, 1-y Basmannyy per., d.12, kv.8)

Comparative characteristic of the development of motor centers in the cervical segments of the human spinal cord. Arkh. anat. gist. i embr. 36 no.5:42-54 My '59. (MIRA 12:7)

1. Kafedra normal'noy fiziologii (zav. - deystv.chlen AMN SSSR prof. P. K. Anokhin) I Moskovskogo ordena Lenina meditsinskogo instituta im. I.M. Sechenova.

(SPINAL CORD, embryol.

motor centers in cervical segments in man (Rus))

SHULEYKINA, K.V. (Moskva, 1-y Basmannyy per., dl.12, kv.8)

Characteristics of the development of association connections at the level of the cervical segments of the spinal cord in the human embryo. Arkh.anat.gist.i embr. 37 no.9:14-23 S '59. (MIRA 13:1)

1. Laboratoriya embriogeneza cheloveka (zaveduyushchiy - deystvitel'-nyy chlen AMN SSSR prof. P.K. Anokhin) Instituta akusherstva i gineko-logii Ministerstva zdravookhraneniya RSFSR.
(SPINAL CORD, embryol)

TURPAYEV, T.M.; SHULEYKINA, K.V.

Method for recording sucking movements in the newborn infant.
Fiziol.zhur. 45 no.8:1030-1032 Ag '59. (MIRA 12:11)

1. From the laboratory of general and comparative physiology,
A.H.Severtsov Institute of Animal Morphology, and from the
laboratory of human embryogenesis, Institute of Obstetrics
and Gynaecology, Moscow.
(INFANT, NEWBORN, physiology)

SHULEYKINA, K.V.

Organizing role of afferent impulses in the sucking act of a newborn infant. Trudy 1-go MMI 11:384-394 '61. (MIRA 15:5)

1. Laboratoriya embriogeneza cheloveka (zav. - prof. P.K.Anokhin)
Instituta akusherstva i ginekologii Ministerstva zdravookhraneniya
RSFSR, Moskva.

(INFANTS (NEWBORN)) (REFLEXES)

SHULEYKINA, K.V.; GLADKOVICH, N.G.

Endings of presynaptic fibers in the motor neurons of the spinal cord in human embryos. Biul. eksp. biol. i med. 59 no.4:106-111 Ap '65. (MIRA 18:5)

1. Laboratoriya embriogeneza cheloveka (zav. - kand. med. nauk Ye.I. Golubeva, nauchnyy konsul'tant - deystvitel'nyy chlen AMN SSSR prof. P.K. Anokhin) Instituta akusherstva i ginekologii (dir. - prof. O.V. Makeyeva) Ministerstva zdravookhraneniya SSSR.

SHULEYKINA, K.V.

Brain stem mechanisms forming food reactions in kittens
during the first weeks of life. Fiziol. zhur. 50 no.8:
1025-1034 Ag '64. (MIRA 18:12)

1. Laboratoriya embriogeneza cheloveka Instituta akusherstva i
ginekologii Ministerstva zdravookhraneniya SSSR, Moskva.

SHULEYKINA, Ye.N.

Protection of surgical apparatus and instruments from the effect of scale
formation. Khirurgiia no.3:77-78 Mr '53. (MLRA 6:6)
(Surgical instruments and apparatus)

SHULEYKO, B.S., inzh.

Increasing the load capacity of spur gears. Vest.mash. 41 no.3:3-7
Mr '61. (MIRA 14:3)

(Gearing, Spur)

SYCH, Ye.D.; SHULEZHKO, A.A.; KIPRIANOV, A.I.

Cyanine dyes from 2-methylacenaphtheno-(1, 2-d)-thiazole. Ukr.
khim.zhur. 28 no.2:213-218 '62. (MIRA 15:3)

1. Institut organicheskoy khimii AN USSR.
(Cyanines)

KIPRIANOV, A.I.; SHULEZHKO, A.A.

Cyanine dyes with a furan ring in the polymethine chain. Zhur. ob.
khim. 34 no.12:3932-3937 D '64 (MIRA 18:1)

1. Institut organicheskoy khimii AN UkrSSR.

KIPRIANOV, A.I.; SHULEZHKO, A.A.

Cyanine dyes with a furan ring in the polymethine chain. Part 2.
Zhur.org.khim. 1 no.2:352-355 F '65. (MIRA 18:4)

1. Institut organicheskoy khimii AN UkrSSR.

KIPPIANOV, A.I.; SHULEZHKO, A.A.

Cyanine dyes with the benzene ring in the polymers chain.
Zhur. org. khim. 1 no.4:756-762 Ap '65. (RUSS 16:11)

1. Institut organicheskoy khimii AN UkrSSR.

SHULEZHKO, L.F.

Nonlinear vibrations of a plate. Pribl. metod. resh. diff.
urav. no.1:141-154 '63 (MIRA 18:2)

L 01455-66 EMT(d)/EMT(m)/EWP(w)/EWP(v)/EWP(k)/EWA(h)/ETC(m) EM/AM
 ACCESSION NR: AT5018551 UR/3156/63/001/001/0135/0170 32
 AUTHOR: Shulezhko, L. F. 26 26 B+1
 TITLE: A study of dynamic stability of flexible plates and shells in a nonlinear situation when subjected to periodic forces of high frequency 24
 SOURCE: AN UkrSSR. Institut matematiki. Seminar po matematicheskoy fizike i nelineynym kolebaniyam. Trudy, v. 1, no. 1, 1963, 135-170
 TOPIC TAGS: nonlinear differential equation, dynamic stability, boundary value problem, partial differential equation, shell structure
 ABSTRACT: The analysis of shells, sloping and with large deflections, leads to equations of the following form:

$$\frac{\partial^2 u}{\partial x^2} + \frac{1-\mu}{2} \frac{\partial^2 u}{\partial y^2} + \frac{1+\mu}{2} \frac{\partial^2 v}{\partial x \partial y} = -(\kappa_1 W)_x - W_x W_{xx} -$$

$$-\mu(\kappa_2 W)_x - \frac{1-\mu}{2} (W_{xy} W_y + W_x W_{yy}) = f_1,$$
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L 01455-66

ACCESSION NR: AT5018551

$$\frac{\partial^2 V}{\partial y^2} + \frac{1-\mu}{2} \frac{\partial^2 V}{\partial x^2} + \frac{1+\mu}{2} \frac{\partial^2 U}{\partial x \partial y} = -(\kappa_2 W)_y - W_y W_{yy}$$

$$-\mu(\kappa_1 W)_y - \frac{1+\mu}{2} (W_{xy} W_x + W_y W_{xx}) = f_2,$$

$$\nabla^4 W = \frac{1}{D} [N_1 (W_{xx} - \kappa_1) + N_2 (W_{yy} - \kappa_2) + 2N_{12} W_{xy} - \rho h W_{tt}]$$

with the corresponding boundary conditions

$$N_1 = B(u_x + \kappa_1 W + \frac{1}{2} W_x^2 + \mu V_y + \mu \kappa_2 W + \frac{\mu}{2} W_y^2),$$

$$N_2 = B(v_y + \kappa_2 W + \frac{1}{2} W_y^2 + \mu u_x + \mu \kappa_1 W + \frac{\mu}{2} W_x^2),$$

$$N_{12} = \frac{B(1-\mu)}{2} (u_y + v_x + W_x W_y),$$

Card 2/3

L 01455-66

ACCESSION NR: AT5018551

Also studied are the equation for a cylindrical shell, that of a thin plate (membrane) under forces distributed evenly and parallel to the edges, and that of a thin circular cylindrical shell supported by movable hinges at the ends and acted upon by a longitudinal periodic force.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: AS, MA

NO REF SOV: 011

OTHER: 000

Card 3/3

BEREZOVSKIY, A.A. [Berezovs'kyi, A.A.]; SHULEZHKO, L.F.

Parametric resonance of a plate under conditions of nonlinearity.
Dop. AN URSR no.8:989-993 '63. (MIRA 16:10)

1. Institut matematiki AN UkrSSR. Predstavleno akademikom
AN UkrSSR Yu.A. Mitropol'skim [Mytropol's'kyi, IU.O.].
(Electrodynamics)
(Integrodifferential equations)

SHULEZHKO, L.F. (Kiyev)

Dynamic stability of a cylindrical shell subjected to the action
of high-frequency axial periodical forces. Ukr. mat. zhur. 15
no.3:338-343 '63. (MIRA 16:12)

ACCESSION NR: AP4010055 S/0021/64/006/001/0010/0014

AUTHOR: Shulezhko, L. F.

TITLE: Raising the stability of flexible plates and cylindrical panels by means of vibrations

SOURCE: AN UkrRSR. Dopovid1, no. 1, 1964, 10-14

TOPIC TAGS: nonlinear vibration, nonlinear elasticity, dynamic force, linear deformation, static force, elastic system, stability, dynamic stability

ABSTRACT: This work considers the question of increasing the dynamic stability of certain nonlinear systems, in particular of flexible plates and cylindrical panels, by means of high-frequency compressive vibrational forces. It is determined that distorted forms are stable only for static forces greater than the critical force. Orig. art. has 30 formulas.

ASSOCIATION: Insty*tut matematy*ky* AN URSR (Mathematics Institute).

SUBMITTED: 24May63

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: PH

NO REF SOV: 005

OTHER: 000

Card 1/1

TOLMACHEV, A.I.; SHULEZHKO, L.M.; KISILENKO, A.A.

Basicity of the series of pyrone compounds. Part 1: Basicity of
chromone compounds. Zhur. ob. khim. 35 no.10:1707-1711 O '65.
(MIRA 18:10)

1. Institut organicheskoy khimii AN UkrSSR.

ACC NR: AP6023580 SOURCE CODE: UR/0409/66/000/003/0368/0371

AUTHOR: Borisevich, A. N.; Shulezhko, S. A.; Pel'kis, P. S.

ORG: Institute of Organic Chemistry, Academy of Sciences, UkrSSR :
(Institut organicheskoy khimii Akademii nauk UkrSSR)

TITLE: Arylamides of substituted thioacetic acid. III. Cyclization
of arylamides of acetylthioacetic acid

SOURCE: Khimiya geterotsiklicheskikh soedineniy, no. 3, 1966,
368-371

TOPIC TAGS: acetylmethylenearyphenylthiazoline, acetylmethylene-
arylthiazolidone, *cyclization*, *acetic acid*

ABSTRACT:

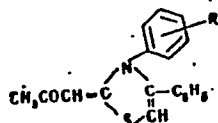
Previously unreported 2-(acetylmethylene)-3-aryl-4-phenylthiazolines
I—V (see Table 1) were obtained by boiling an equimolar mixture of
arylamides of acetylthioacetic acid with ω -bromoacetophenone in ethanol
and separation on a chromatographic column packed with Al_2O_3 . Reactions

Card 1/3

UDC: 547.292+542.952.52

ACC NR: AP6023580

Table 1. 2-(acetylmethylene)-3-aryl-4-phenylthiazolines



Compound no.	R	T. mp., °C	Formula	Found s. %	Calculated s. %	Yield %
i	H	215—216	C ₁₈ H ₁₆ NOS*	11,03; 11,04	10,95	52
II	p-CH ₃	158—159	C ₁₉ H ₁₇ NOS	10,26; 10,23	10,43	50
III	p-OCH ₃	145—146 (Decomp.)	C ₁₉ H ₁₇ NO ₂ S	9,80; 9,77	9,90	52
IV	o-OCH ₃	192—194	C ₁₉ H ₁₇ NO ₂ S	9,98; 9,98	9,90	48
V	p-OC ₂ H ₅	132—133	C ₂₀ H ₁₉ NO ₂ S	9,34; 9,28	9,48	53

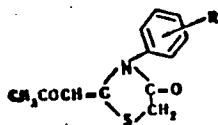
* Found: C 73,79; 73,72; H 5,01; 5,03; N 4,99; 5,09%; M 292,4. Calculated: C 73,65; H 5,14; N 4,77%; M 293,36.

of arylamides of acetylthioacetic acid with monochloroacetic acid in the presence of anhydrous sodium acetate in glacial acetic acid yielded the previously unreported 2-(acetylmethylene)-3-aryl-4-thiazolidones:

Card 2/3

ACC NR: AP6023580

Table 2. 2-(acetylmethylene)-3-aryl-4-thiazolidones



Compound no.	R	T. mp., °C	Formula	Found s. %	Calculated s. %	Yield
VI	H	204—206	C ₁₁ H ₁₁ NO ₂ S	13.46; 13.45	13.75	36
VII	p-CH ₃	200—202	C ₁₂ H ₁₃ NO ₂ S	12.86; 12.87	13.01	43
VIII	p-OCH ₃	201—202	C ₁₃ H ₁₃ NO ₃ S	11.95; 12.02	12.19	43
IX	o-OCH ₃	145—146	C ₁₃ H ₁₃ NO ₃ S	12.18; 12.26	12.19	40
X	p-OC ₂ H ₅	163—164	C ₁₅ H ₁₅ NO ₃ S	11.64; 11.63	11.56	50

• Found: C 63.36; 63.32; H 5.31; 5.27; N 6.01; 6.03%; M 256.9. Calculated: C 63.13; H 5.29; N 5.66%; M 247.32.

Orig. art. has: 2 tables.

[W.A.50; CBE No. 10]

SUB CODE: 07/ SUBM DATE: 04Jan65/ ORIG REF: 002/ OTH REF: 006

TRISS:

Card 3/3

SIRIL'ZEM, N. S.

Mar., Glesca Base, Sevastopol' Biological Sta., Dept. Biol. Sci., Acad. Sci., -1946-
"Protective Coloration of Crustacean Idothea (Idothea Tricuspidata Desm.)," Dok. AN,
60, No. 2, 1946.

SHUL'FS, R. S.

21008 Shul'fs, R.S. Heligmosomun Skrjabini Schulzkak model' dlya izucheniya immuniteta pri nematodozakh Izvestiya Akad. Nauk Kazakh SSR No. 44, Seriya parazitol, vyp. 6, 1948, s. 163-67---Rezyume Na Kazaki Yaz.

SO; LETOPIS ZHURNAL STATEY- Vol. 28, Moskovsk, 1949

SHUL'GA, A.

Truck attachment for the bulk transportation of raw cotton. Avt.
transp. 39 no.5:20-21 My '61. (MIRA 14:5)
(Motortrucks) (Cotton—Transportation)

SHUL'GA, A. I.

SHUL'GA, A. I.: "Problems of the clinical aspect and treatment of multiple sclerosis." Kiev Order of Labor Red Banner Medical Institute imeni Academician A. A. Bogomolets. Kiev, 1956. (DISSERTATION FOR THE DEGREE OF DOCTOR IN MEDICAL SCIENCE).

Knizhnaya letopis
No. 1, 1956. Moscow

SHUL'GA, A.I., kandidat meditsinskikh nauk

Specific vaccine for treating multiple sclerosis. Vrach.delo no.7:
695-697 J1 '57. (MLBA 10:8)

1. Kafedra nervnykh bolezney (zav. - deystvitel'nyy chlen AMN SSSR
prof. B.N.Man'kovskiy) Kiyevskogo meditsinskogo instituta
(VACCINES) (SCLEROSIS, MULTIPLE)

SHUL'GA, A.I.

SHUL'GA, A.I., kandidat meditsinskikh nauk

Hexachloran poisoning. Klin.med. 35 no.5:139-142 My '57. (MLRA 10:8)

1. Iz Khmel'nitskogo oblastnogo psikhonevrologicheskogo dispansera
(BENZENE HEXACHLORIDE, pois.
clin. aspects)

SHUL'GA, A.I.

~~Some aspects of vascular pathology in multiple sclerosis. Zhur.~~
nevr. i psikh 59 no.5:518-522 '59. (MIRA 12:7)

1. Kafedra nervnykh bolezney (zav. - prof. B.N. Man'kovskiy)
Kiyevskogo meditsinskogo instituta.

(MULTIPLE SCLEROSIS, compl.
cardiovasc. dis. (Rus))

(CARDIOVASCULAR DISEASES, etiol. & pathogen.
multiple sclerosis (Rus))

SHUL'GA, A.I.

Atypical forms of multiple sclerosis. Zhur. nevr. i psikh. 60
no.3:301-306 '60. (MIRA 14:5)

1. Kafedra nervnykh bolezney (zav. - prof. B.N.Man'kovskiy) Kiyev-
skogo meditsinskogo instituta.
(MULTIPLE SCLEROSIS)

SHUL'GA, A.I., kand.med.nauk; SOBOL', B.B.

Over-all treatment of alcoholics. Vrach. delo no.2:127-128 F '61.
(MIRA 14:3)

1. Khmel'nitskiy oblastnoy psikhonevrologicheskiy dispanser.
(ALCOHOLISM)

SHUL'GA, A.I., kand.med.nauk

Sensibility disorders in multiple sclerosis. Vrach. delo no.9:
(MIRA 16:10)
80-83 S 63.

1. Kafedra nervnykh bolezney (zav. - prof. A.A.Yarosh) Ternopol'skogo meditsinskogo instituta.
(MULTIPLE SCLEROSIS) (PERCEPTION, DISORDERS OF)

GURINOVICH, G.P.; GURINOVICH, I.F.; SHUL'GA, A.M.

Spectral-luminescence study of the products of photochemical
reactions in porphyrins. Dokl. AN BSSR 8 no.5:292-295 My '64.
(MIRA 17:9)

1. Institut fiziki AN BSSR. Predstavleno akademikom AN BSSR
A.N. Sevchenko.

SHUL'GA, A.M. [Shul'ha, A.M.]; ROMANCHENKO, V.M.

Rolls for heel polishing. A.M. Shul'ga, V.M. Romanchenko. Lsh.
prom. no.2:57 Ap-Js'64 (MIRA 17:7)

GURINOVICH, G.P.; PATEYEVA, M.V.; SHUL'GA, A.M.

Study of the luminescence spectra of photochemical transformations
of porphyrins. Izv. AN SSSR. Ser. fiz. 27 no.6:777-781 Je '63.
(MIRA 16:7)

(Photochemistry) (Porphyrins—Spectra)

GURINOVICH, G.P.; SHUL'GA, A.M.; SEVCHENKO, A.N., akademik

Polarized lumininescence of the reduced forms of porphyrins.
Dokl. AN SSSR 153 no.3:703-705 N '63. (MIRA 17:1)

1. AN SSSR (for Sevchenko).

S/0250/64/008/005/0292/0295

ACCESSION NR: AP4040921

AUTHOR: Gurinovich, G. P.; Gurinovich, I. F.; Shul'ga, A. M.

TITLE: Spectral luminescence study of the photochemical reaction products of porphyrins

SOURCE: AN BSSR. Doklady*, v. 8, no. 5, 1964, 292-295

TOPIC TAGS: spectral luminescence, photochemistry, porphyrin, absorption spectrum, polarized luminescence, infrared study

ABSTRACT: Because of the difficulties of studying reversible reactions in porphyrins in the presence of oxygen, the authors used indirect methods. They made measurements on frozen solutions of photoreduced porphyrins with ascorbic acid and found the degree of luminescence polarization to be about $1/2$, even in acid solutions when polarization of the initial porphyrins did not exceed $1/7$. This result contradicts the view that two central C = N double bonds are formed in the hydration of porphyrins by ascorbic acid. Polarization measurements thus eliminate a number of possible hypotheses concerning the structure of photoreduced porphyrins. Infrared studies indicate that basic changes in valence vibrations of N-H reduce to a few weak absorption bands. This may be interpreted in one of two ways:

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OSTROVSKIY, Ya.M. [Ostrovskiy, I.A.M.]; SERDYUKOV, I.I.; KATS, Yu.M.;
KOZACHUK, A.I.; TURZHANSKIY, Yu.V. [Turzhanskii, I.U.V.];
SNIGUR, I.I. [Snihur, I.I.]; KIRILLOVSKIY, G.S. [Kyryllovskiy,
H.S.]; BRON, S.S.; PESIS, Ye.I. [Pesis, E.I.]; SHUL'GA, A.M.
[Shul'ga, A.M.]

Proposals of efficiency promoters. Leh.prom. no. 4:81-88
O-D '63. (MIRA 17:5)

1. Khar'kovskaya obuvnaya fabrika (for Ostrovskiy, Serdyukov,
Kats). 2. Zhitomirskaya obuvnaya fabrika (for Kozachuk,
Turzhanskiy, Snigur). 3. Kiyevskaya obuvnaya fabrika No. 6
(for Kirillovskiy, Bron, Pesis, Shul'ga).

SHUL'GA, A.N.

Investigating the dynamics of starch viscosity in stored potato tubers.
Sakh.prom. 38 no.1:58-61 Ja '64. (MIRA 17:2)

1. TSentral'nyy respublikanskiy botanicheskiy sad AN UkrSSR.

SHUL'GA, A.N.

Method for rapid determining of the rate of saccharification of
starches. Izv.vys.ucheb.zav.; pishch.tekh. no.5:158-159 '63.
(MIRA 16:12)

1. Kiyevskiy gosudarstvennyy universitet.

SHUL'GA, A. O.

Prof., Otorhinolaryngology Clinic, Chkalov Med. Inst., -~~c1048-c49~~-. "Symptom of Thrombus in the Walls of a Blood Vessel in the Sigmoid and Transverse Sinus," Vest. Oto-rino-laringol., No. 1, 1948; "Otogenous Osteomyelitis of the Cranial Bones," Ibid. No. 3, 1949.

SHUL'GA, A. O.

Larynx - Cancer

Surgical technique in laryngeal cancer. Vest. oto-rin. 14 no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1952, 2. Unclassified.

SHUL'GA, A.O.

SHUL'GA, A.O., professor; SHUPAKEVICH, V.A., vrach

Problem of conservative therapy in perforations of the esophagus
and of associated complications. Vest.oto-rin. 16 no.2:73-75
Mr-Ap '54. (MLRA 7:6)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. prof. A.O.Shul'ga)
Chkalovskogo meditsinskogo instituta.
(ESOPHAGUS, perforation,
*ther., conservative)

SHUL'GA, A.O., professor

"Ear diseases" by A.I. Kolomiichenko. Reviewed by A.O. Shul'ga.
Vest. oto-rin. 19 no.1:113-116 Ja-F '57 (MLRA 10:4)
(EAR--DISEASES)(KOLOMIICHENKO, A.I.)

SHUL'GA, A.O., prof.

Combined treatment of cancer of the larynx [with summary in English].
Vest.oto-rin. 19 no.4:56-61 J1-Ag '57. (MIRA 10:11)

1. Iz kliniki bolezney ukha, gorla nosa Chkalovskogo meditsinskogo
instituta.

(LARYNX, neoplasms

radiother. & surg.)

(RADIOTHERAPY, in various dis.

cancer of larynx, with surg.)

SHUL'GA, A.O., prof.; TOLSTOV, Yu.P.

Otogenic abscesses of the brain. Vest.otorin. 21 no.3:48-53
My-Je '59. (MIRA 12:9)

1. Iz kliniki bolezney ukha, gorla i nose (zav. - prof.A.O.
Shul'ga) Orenburgskogo meditsinskogo instituta.
(BRAIN, abscess
otogenic, progn. (Rus))
(OTITIS, compl.
brain abscess, progn. (Rus))

SHUL'GA, A.O., prof.

Review of I.M. Rozenfel'd's "First aid in diseases and injuries
of the ear, upper respiratory tract, and esophagus." Vop.otorin.
21 no.6:91-93 N-D '59. (MIRA 13:4)
(FIRST AID IN ILLNESS AND INJURY) (ROZENFEL'D, I.M.)

SHUL'GA, A.O., prof.; ZHEZHA, V.M.

Materials on otorhinolaryngological injuries in agriculture.

Zhur. ush., nos. i gorl. bol. 21 no.2:58-61 M-Ap '61.

(MIRA 14:6)

1. Klinika bolezney ukha, gorla i nosa Orenburgskogo meditsinskogo instituta.

(AGRICULTURE--ACCIDENTS) (OTOLARYNGOLOGY)

SHUL'GA, A. O., prof.; MISHEN'KIN, N. V., aspirant

Rhinogenic intracranial complications. Vest. otorin. no.2:12-17
'62. (MIRA 15:2)

1. Iz kliniki bolezney ukha, nosa i gorla (zav. - prof. A. O.
Shul'ga) Orenburgskogo meditsinskogo instituta.

(BRAIN--DISEASES) (SINUSITIS)

LUKOV, B.N., prof. (Kuybyshev); PETROV, V.I., dotsent (Moskva);
 PAVLENKO, T.M., aspirant (Moskva); YERMOLAYEV, V.G., prof.
 (Leningrad); ADO, A.D., prof.; VOVSII, M.S., prof.;
 YERMOLAYEV, V.G., prof. (Leningrad); KUPRIYANOVA, N.A. (Kazan');
 PETROV, G.I. (Moskva); DOLGOPOLOVA, A.V. (Moskva); SAKHAROV, P.P.,
 prof.; BYKHOVSKIY, Z.Ye., prof.; MIN'KOVSKIY, prof. (Chelyabinsk);
 KHMEL'CHONOK, I.P. (Irkutsk); TEMKIN, Ya.S., prof. (Moskva);
 MIN'KOVSKIY, A.Kh., prof. (Chelyabinsk); MIL'SHTEYN, T.N., doktor
 med.nauk (Leningrad); TRUTNEV, V.K., zasluzhennyy deyatel' nauki,
 prof.; TSYRESHKIN, B.D., kand.med.nauk (Moskva); SOBOL', I.M.,
 prof. (Stavropol'); TURIK, G.M. (Moskva); FRENKEL', M.M. (Moskva);
 MAZO, I.L.; POKRYVALOVA, K.P.; PROSKURYAKOV, S.A., prof.;
 ATKARSKAYA, A.A., prof.; GOL'DFARB, I.V., prof. (Izhevsk);
 PORUBINOVSKAYA, N.M. (Moskva); RUDNEV, G.P., prof.; VOL'FSON, I.Z.,
 prof. (Stalingrad); DOROSHENKO, I.T., prof. (Kalinin);
 ROZENFEL'D, M.O., prof. (Leningrad); SHUL'GA, A.O., prof. (Orenburg);
 MIKHLIN, Ye.G., prof.; TRET'YAKOVA, Z.V. (Moskva); MANUYLOV, Ye.N.,
 prof. (Moskva); DOROSHENKO, I.T., prof. (Kalinin); YERMOLAYEVA, V.G.,
 prof.

Speeches in the discussion. Trudy gos. nauch.-issl. inst. ukha,
 gorla i nosa no.11:79-87,129-146,179-186,233-248,311-333 '59.
 (MIRA 15:6)

1. Chlen-korrespondent AMN SSSR (for ADO). 2. Direktor Moskov-
 skogo gosudarstvennogo instituta ukha, gorla i nosa (for Trutnev).
 (OTORHINOLARYNGOLOGY—CONGRESSES)

SHUL'GA, A.O., prof.; MISHEN'KIN, N.V.

Laryngeal angina. Zhur.usk., nos.i gorl.bol. 21 no.6:29-32 N-D '61.
(MIRA 15:11)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - prof. A.O.Shul'ga)
Orenburgskogo meditsinskogo instituta.
(LARYNX--DISEASES)

SHUL'GA, A.O.

Method of surgical treatment in congenital hypoplasia of the
ear. Vest.oring. 24 no.6:28-31 N-D'62. (MIRA 16:7)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. kafedroy -
prof. A.O.Shul'ga) Orenburgskogo meditsinskogo instituta.
(EAR--ABNORMITIES AND DEFORMITIES)
(EAR--SURGERY)

VOZNESENSKIY, A.N., prof.; VOL'FKOVICH, M.I., prof.; GESHELIN, A.I.,
prof.[deceased]; GORDYSHEVSKIY, T.I., prof.; YERMOLAYEV,
V.G., prof.; ZARITSKIY, L.A., prof.; KOTS, L.Ya., prof.;
LIKHACHEV, A.G., zasl. deyatel' nauki prof.; PROSKURYAKOV,
SHUL'GA, A.O., prof.; NEYMAN, L.V., prof., red.;
SHCHERBATOV, I.I., prof., red. doma; TIKHOMIROVA, G.I.,
red.; PREOBRAZHENSKIY, Yu.B., red.; CHULKOV, I.F., tekhn.red.

[Multivolume manual on otorhinolaryngology] Mnogotomnoe rukovodstvo po otorinolaringologii. Otv. red. A.G.Likhachev. Moskva, Medgiz. Vol.4. [Diseases of the upper respiratory tract] Zabolevaniia verkhnikh dykhatel'nykh putei. Red. toma L.V.Neiman. i I.I.Shcherbatov. 1963. 518 p. (MIRA 17:3)

1. Chlen-korrespondent AMN SSSR (for Likhachev).



SOV/126-7-4-14/26

AUTHOR: Shul'ga, B.N.

TITLE: Investigation of the Character of Fracture of Plastic Metals under Conditions of Stress Concentration

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 7, Nr 4, pp 595-606, (USSR)

ABSTRACT: The object of the investigation described in the present paper was (a) to measure local deformations in the root of the notch of a circumferentially notched cylindrical tensile test piece; (b) to study analytically the stress and strain systems in the plastically deformed region of the smallest cross section of the test piece and (c) to establish the character of fracture of plastic metals under conditions of stress concentration in relation to the properties of the metal and notch characteristics. It was the author's intention to confirm, at least in part, the conclusions reached by Grubin and Likhachev (Ref 2) who studied this problem analytically and suggested a method of determining the cleavage strength, R_G , of plastic metals by room temperature tensile tests on notched test pieces. The composition and mechanical properties of steels used in

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Investigation of the Character of Fracture of Plastic Metals under Conditions of Stress Concentration

the experiments are given in Table 1 under the following headings: type of steel (St 20, normalized; St 45, normalized; St 45, hardened and tempered at 500°C; St 40Kh, hardened and tempered at 500°C); chemical analysis; σ_T (yield point) kg/mm²; σ_B (UTS) kg/mm²; ψ (reduction of area) %; τ_p (true shear strength kg/mm²; g_p (critical value of the true strain of an unnotched cylindrical specimen under tensile stress). Instead of hyperbolically-shaped notches (for which an analytical solution had been obtained by Grubin and Likhachev (Ref 2)), notches formed by two straight lines joined by an arc of a radius, R, whose magnitude approached the theoretical radius, ρ , of the hyperbola, were used. Their characteristics are given in Table 2 under the following headings: notch number; a/ρ (notch sharpness); α_k ; α ; the magnitude of R, mm, in (a) normalized specimen with D (diameter of the cylindrical portion of the test piece) equal to 40 mm and d (diameter at the notch root) equal 20 \pm 0.02 mm, (b) tempered specimens with D = 32 mm and d = 14 \pm 0.02 mm. A tensile testing

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machine equipped with an automatic recorder (in which the extension of the specimen was magnified 100 times), was used in the experiments. Certain difficulties were encountered in studying the various stages of deformation and fracture of the specimens with sharp notches. Owing to the fact that the maximum load, P_{max} , for similar specimens tested to fracture, differed by 5 to 6%, it was difficult to judge the moment when the load was just reaching the value of P_{max} . This difficulty was overcome by making use of the fact that in the case of similar test pieces, the contraction, Δd , of the test piece at the root of the notch, was the same in each specimen at a given value of P/P_{max} (where P is the actually applied load). For each type of the specimen a calibration curve $\Delta d = f(P/P_{max})$ was determined experimentally for the range of loads $0.6 \leq P/P_{max} \leq 0.99$ and when, in subsequent tests, it was desired to subject a test piece to a given load, the value of Δd corresponding to this load was found from the calibration curve, and the load was gradually

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increased until the correct value of Δd (measured by a special indicator) was obtained. For investigating the distribution of local plastic deformations in the notch, a method was used which made it possible to determine, with a sufficient degree of accuracy, the magnitude of the true actual deformation, l_{zk} , and of the maximum true strain, g_{max} , at the root of the notch. To this end, several points were marked on the surface of the notch symmetrically to its axis (see Fig 1, bottom) using typographic ink and a stylus held in a special micromanipulator. The distance (n_1, n_2 , etc) between points was measured before and after deformation and the magnitude of the true actual deformation, l_{zk} , for each gauge length was determined from the general formula $l_{zk} = \ln(1 + [\Delta n]/n)$. The obtained values of l_{zk} were then plotted against the respective gauge lengths (see Fig 1, top) and by extrapolating the curve to the vertical axis of coordinates (coinciding with the axis of the notch) the value of l_{zk} in the root of the notch was obtained. The maximum true strain was calculated from

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the formula $g_{\max} = 2l_{zk} - l_{\theta k}$, where $l_{\theta k} \approx \epsilon_{\theta k} = \frac{\Delta d}{d}$

- tangent relative deformation in the root of the notch. The distribution of true axial deformation on the surface of notches Nos 1, 2, 3, 4, 5 (graphs a,b,v, g,d, respectively) in specimens of normalized steels St 45 (continuous curves) and St 20 (broken curves) is illustrated in Fig 2. (The number given by each curve indicates the load expressed as a fraction of P_{\max} ; the gauge length in mm is indicated on the horizontal axis.) Fig 3 shows how g_{\max} , l_{zk} and $\psi = 2l_{\theta k}$ (contraction of the specimen at the root of the notch) varied with P/P_{\max} in normalized steel St 20, the number given by each curve denoting the notch number. The same set of curves for steel St 40Kh (hardened and tempered at 500°C) is reproduced in Fig 4. Graphs of the true axial normal (σ_2 , kg/mm²) and tangential (τ_{\max} , kg/mm²) stresses, and of the true maximum strain (g_{\max}) at the root of the notch in steel St 40Kh (hardened and tempered at 500°C) under loads approaching

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P_{max} ($P = 0.98 P_{max}$) are reproduced in Fig 5. Analysis of the experimental results (including the results of metallographic examination of microsections of the tested specimens), correlated with the results of other workers, led the author to several conclusions. (1) Good agreement between the experimental and analytical data indicates that the analytical solution proposed by Grubin and Likhachev describes with sufficient accuracy (in the first approximation) the conditions of stress and deformation in notched tensile test pieces. (2) In studying the character of fracture of notched test pieces, three stages of plastic deformation should be distinguished, the properties of the metal and the notch geometry determining during which stage the fracture of the test piece takes place. These three stages of plastic deformation are shown schematically in Fig 6. The first stage (Fig 6, I) is characterized by a comparatively small degree of plastic deformation at the notch. In this case the region of plastic deformation (shown in Fig 6, I, by the shaded

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areas adjacent to the notch) has not reached the axis of the test piece; the fracture occurs at comparatively low value of strain in the root of the notch and begins after the maximum actual stress $(\sigma_z)_{\max}$ exceeds the rupture strength; the stress-strain curve in this case ends almost immediately above the proportionality limit (curve 3 in Fig 6). In the second stage, the regions of plastic deformation above and below the minimum cross section of the test piece, extend to its axis, as a result of which a closed region of plastic deformation, enclosing an elastic core, is formed (Fig 6, II); this stage is characterised by continuous increase of ϵ_{\max} and τ_{\max} in the domains located between the notch root and the centre of the smallest cross section of the specimen and by an increase of the axial stress in the plastic and elastic regions. In the second stage of plastic deformation, two modes of fracture are possible: (1) τ_{\max} , ϵ_{\max} , and $(\sigma_z)_{\max}$ will increase until $(\sigma_z)_{\max}$ becomes equal to the rupture strength ($S\sigma_i$) before ϵ_{\max} in the notch root has reached its critical value,

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at which moment the test piece will begin to fail by ductile fracture. This mode of fracture was observed in notched specimens of steels characterized by sufficiently high shear strength, σ_s , (heat-treated steels St 45 and St 40Kh) but only when the notches were moderately sharp (notch Nr 2 and 3); in this case the value of the maximum strain in the notch root was considerably lower than the value of g_p ; (ii) the maximum strains in the notch root attain the critical strain g_p before $(\sigma_z)_{\max}$ has attained the rupture strength (σ_{zi}) ; in this case, the specimen begins to fail at the notch surface when the metal cannot deform plastically any longer. This mode of fracture was typical for specimens of steels characterized by low shear strength (normalized steels St 20 and St 45) with notches Nr 2 to 5, and for the specimens of heat-treated steels St 45 and St 40Kh with sharp notches Nr 4 and 5. The stress-strain curves corresponding to the second stage of deformation terminate almost immediately after the load has passed its maximum values (curve 2 in

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Fig 6). Specimens with notches Nr 1 (minimum sharpness) fail during the third stage of deformation (Fig 6, III); the stress-strain curve in this case resembles that for unnotched specimens (curve 1, Fig 6).

(3) Regarding the problem of determining the cleavage strength, its magnitude cannot be assessed for materials characterised by low shear strength and high rupture strength (St 20, St 45) whatever is the notch geometry, since specimens with low a/ρ fail after plastic deformation has spread across the whole minimum cross section of the specimen, while fracture of specimens with sharp notches begins at the notch surface where the maximum strain reaches the critical value. On the other hand, cleavage strength can be determined for metals with high shear strength (in the case under consideration steel St 40 and St 45) from data obtained on specimens with notches of moderate sharpness (notches Nr 2 and 3). The maximum strain in the notch region of these specimens at the moment of fracture, although attaining quite high values, is always lower than the

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critical value. If the magnitude of the maximum strain in the notch root reaches the values approaching the critical value, the rupture strength calculated for these specimens can be considered as the lower limit of cleavage strength. This being the case, it was possible to determine the lower limit of cleavage strength for all steels studied in the course of the present investigation. With the aid of the method described by Grubin and Likhachev (Ref 2), graphs were constructed showing the relationship between the rupture strength ($S\sigma_i$) of deformed steel and the degree of plastic deformation preceding the fracture. A diagram of this type is reproduced in Fig 8, where the maximum actual stress (for each notch) in section $z = 0$ is plotted against the maximum strain $g_{\max} = g_0$ (see Fig 5) calculated for the point in which $(\sigma_z) = (\sigma_z)_{\max}$ at the same load. (Numbers given by the points denote the notch numbers; starting from the top of Fig 8, the graphs refer to steel St 40Kh tempered at 500°C,

Card 10/11 steel St 45 tempered at 500°C, normalized steel St 45

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and normalized steel St 20.) It will be seen that the points obtained from experimental data are situated within the narrow band and it can be assumed that the same should apply to the left portion of the diagram where S_{0i} decreases with decreasing plastic deformation. If, therefore, the band is extrapolated to the vertical axis, the ordinate of the point A (a point of intersection of the vertical axis with the median line of the band) will give, in the first approximation, the cleavage strength, R_0 , of the undeformed metal. There are 8 figures, 2 tables and 6 Soviet references.

ASSOCIATION: Izhevskiy mekhanicheskiy institut (Izhevsk Mechanical Institute)

SUBMITTED: April 15, 1957

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S/137/62/000/006/108/163
A052/A101

AUTHOR: Shul'ga, B. N.

TITLE: On some characteristics of fracture of ductile metals under conditions of stress concentration at tension

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 36 - 37, abstract 6I218 ("Dokl. L'vovsk. politekhn. in-ta", v.5, no. 1, Mekhanika, 1961, 162 - 170)

TEXT: The investigation was carried out on cylindrical samples with notches of different parameters. The samples were made of CT 40 X (St40Kh) after hardening and tempering at 500°C and of normalized CTY8A (StU8A). On St40Kh it has been established that the degree of localization of deformation in notches at equal relative loads increases with an increase of the rigidity of notches. The rigidity of notches is characterized by the ratio of the radius of the smallest cross-section of the notch to the radius of the hyperbola at the top of the notch. The value of ψ , characterizing the mean ductility, at equal relative loads decreases with the transition to more rigid notches, whereas the axial D , l_z and the

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L 02519-67 EWT(m)/EWP(w)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HW/EM

ACC NR: AR6015962

SOURCE CODE: UR/0277/65/000/012/0007/0007

AUTHOR: Shul'ga, B. N.

TITLE: Singularities in the failure of some structural steels under conditions of triaxial stretching

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruksii i raschet detaley mashin. Gidroprivod, Abs. 12.48.66

REF SOURCE: Vestn. L'vovsk. politekhn. in-ta, no. 4, 1965, 121-124

TOPIC TAGS: structural steel, material failure, tensile strength, stress concentration

ABSTRACT: Data are given from metallographic studies of the destruction process in ductile metals under conditions of tensile stress concentration. These studies and measurements of localized plastic deformation at a notch are used as a basis for describing the possible nature of the destruction of the specimens as a function of the material and the parameters of the notch. [Translation of abstract]

SUB CODE: 11, 20

Notch Sensitivity

Card

1/1

agh

UDC: 669.14.018.29;539.4

L 33002-65 EWT(1)/EWT(m)/EWG(m)/ENP(b)/FES-2/EWP(t) IJP(c) JD
ACCESSION NR: AP5007365 S/0286/65/000/004/0026/0026

AUTHOR: Rushchuk, V. I.; Smerdov, I. A.; Yezerets, M. A.; Karnobatskiy, E. K.;
Peller, V. V.; Shul'ga, F. F.

TITLE: A method for producing cupric silicate contact filler paste. Class 12,
No. 168292

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 4, 1965, 26

TOPIC TAGS: storage battery, filler paste, grid plug, silicate

ABSTRACT: This Author's Certificate introduces a method for producing cupric silicate contact filler paste by intensive cooling of the melt. The activity of the paste is improved by allowing the melt to flow over water-cooled rotating shafts, thus cooling it from 1650 to 852°C.

ASSOCIATION: none

SUBMITTED: 19Jul63

NO REF SOV: 000

ENCL: 00

SUB CODE: EE, IC

OTHER: 000

Card 1/1

L 24838-65 EWT(m)/EPF(c)/EWP(j)/T Pc-Li/Pr-Li/Pa-Li RM

ACCESSION NR: AP4047400

S/0062/64/000/010/1877/1879

24
23
B

AUTHOR: Andrianov, K. A. ; Yezerets, M. A. ; Shul'ga, F. F. ; Starodubtsev, E. S.

TITLE: The synthesis of dimethyldichlorosilane

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 10, 1964, 1877-1879

TOPIC TAGS: dimethyldichlorosilane, synthesis, silicon copper alloy, catalyst activation, catalyst alloy structure

ABSTRACT: The reaction of methyl chloride with Si-Cu alloys was investigated to determine optimum conditions for the synthesis of dimethyldichlorosilane (DMDCS). The yield of DMDCS dropped sharply after about 5 hours reaction time; increasing reaction temperature and changing feed rate have no effect on the yield. Addition of group II metal halide promoters extended the time during which a high yield (80%) of DMDCS was obtained to about 15 hours. After 20 hours the yield dropped 20% from the maximum. Treatment of the alloy prior to activation with the metal halide however did not increase the yield of DMDCS but did increase

Card 1/2

L 24838-65

ACCESSION NR: AP4047400

methyltrichlorsilane and carbon yields. The use of a fine grain structured alloy increased DMDCS yield 10-12%. Copper in the alloy was found to cause side reactions, decomposition of the methyl chloride, formation of methyltrichlorosilane, methyldichlorosilane and carbon. On reducing the copper content in the alloy (Abstractor's note: composition was not indicated), 83-84% DMDCS was obtained for 10 hours and 80% yield was obtained even after 30-40 hours. Orig. art. has: 2 tables, 3 figures, and 3 equations.

ASSOCIATION: Institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova
(Institute of Fine Chemical Technology)

SUBMITTED: 13Feb64

ENCL: 00

SUB CODE: GC, OC

NO REF SOV: 002 OTHER: 004

Card 2/2

SHUL'GA, F. T.

Technology

Hydraulic insulation work. Kiev, Gos. izd-vo tekhn. lit-ry Ukrainy, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

SHUL'GA, G.; PRYADKA, G.

Collective Farms

Cooperation of the tractor and field brigades during spring sowing. Kolkh. proizv.
No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

SHUL'GA, G.G.

Finds of moissanite in igneous rocks of central Kazakhstan.
Vest. AN Kazakh. SSR 20 no.1:68-70 Ja '64. (MIRA 17:3)

ACC NR: AP7006290

(A)

SOURCE CODE: UR/0437/66/000/010/0024/0025

AUTHOR: Gayvoronskiy, A. A.; Shul'tga, G. P.

ORG: VNIIBT

TITLE: Cement slurries reinforced with high-strength fiber materials

SOURCE: Bureniye, no. 10, 1966, 24-25

TOPIC TAGS: cement, glass fiber, synthetic fiber, bending strength, tensile strength

ABSTRACT: The authors discuss the possibility of using glass and viscose fibers for increasing the strength of cement. The fibers were 15-30 mm long with a thickness of 10-12 μ for glass and 30-40 μ for viscose. The tensile strength of the glass fibers was 140 kg/mm² while that of the viscose fibers was 80 kg/mm². Standard specimens made from sealing cement produced at the Zdolbunov Plant were tested for bending and tensile strength. The results show that addition of a relatively small quantity of glass or viscose fiber (0.5-3.0 wt.%) increases the strength of the cement by a factor of 1-5. Viscose fiber was found to be less effective than glass. Orig. art. has: 1 figure, 3 tables.

SUB CODE: 11/ SUBM DATE: None

Card 1/1

UDC; 62.243

GAYVORONSKIY, A.A.; SHUL'GA, G.P.

Investigating the plugging properties of cement grouting. Trudy
VNIIBT no.14:77-91 '65. (MIRA 18:5)